

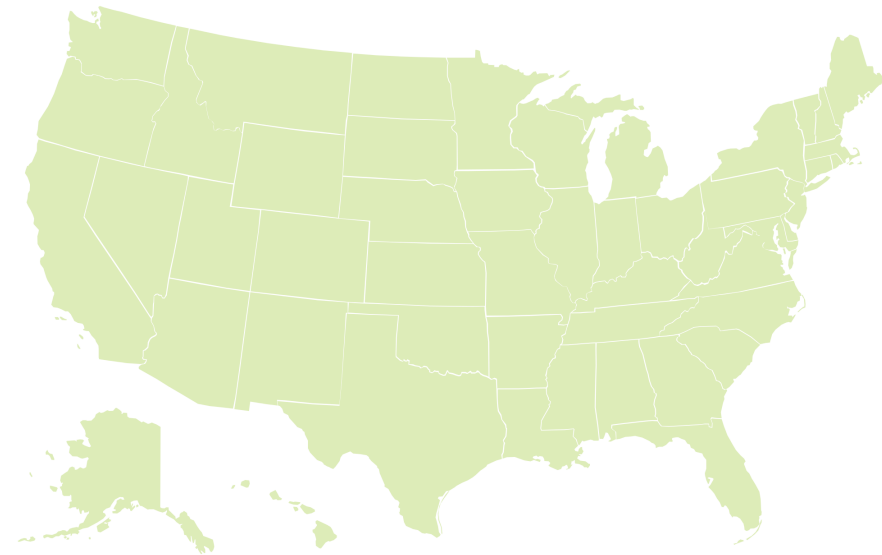
Forum Guide to Personalized Learning Data

National Forum on Education Statistics

Mission: To plan, recommend, and develop education data resources that support local, state, and national efforts to improve public and private education throughout the United States.

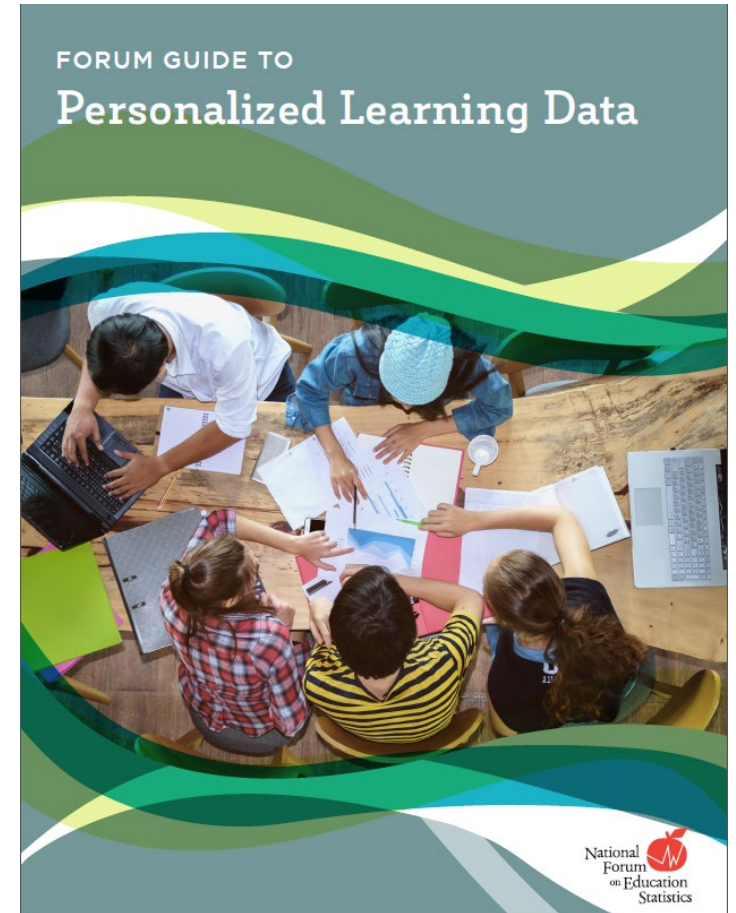
Members:

- Representatives of offices of the U.S. Department of Education and other federal agencies
- Representatives of state and local education agencies (SEAs and LEAs)
- Associate members from U.S. territories, Regional Educational Laboratories (RELs), and national education associations



Personalized Learning Working Group Motivation

- Past Forum discussions have focused on how to support schools and districts that are interested in using personalized learning.
- The Forum convened a working group to explore the topic.
- The group determined that a Forum resource could assist states and districts as they explore whether and how to use personalized learning.



Purpose and Audience

- **Purpose:** To assist state and local education agencies as they consider whether and how to use personalized learning.
- **Audience:** Staff in education agencies who are considering implementing or have already implemented personalized learning. This audience includes program and data staff, researchers, administrators, policymakers, and others who are involved with personalized learning and the students, teachers, and administrators who are part of its implementation and outcomes.

Forum Guide to Personalized Learning Data

Chapter 1: Introduction to Personalized Learning in Schools, Districts, and States

- Defines personalized learning
- Highlights the variation in scope and detail of personalized learning programs across the country
- Clarifies what personalized learning is not
- Provides a list of commonly used terms

What Is Personalized Learning?

Personalized learning refers to instruction in which the pace of learning and the instructional approach are optimized for the needs of each learner. Learning objectives, instructional approaches, and instructional content (and its sequencing) may all vary based on learner needs. In addition, learning activities are meaningful and relevant to learners, driven by their interests, and often self-initiated. (*Office of Educational Technology, 2017*)

Scope of Personalized Learning Varies Considerably

- May be within individual classrooms or schools, or may be systemwide
- May be focused on activities within the classroom or projects outside of school
- May be at only one level (e.g., elementary or middle school), or across K-12

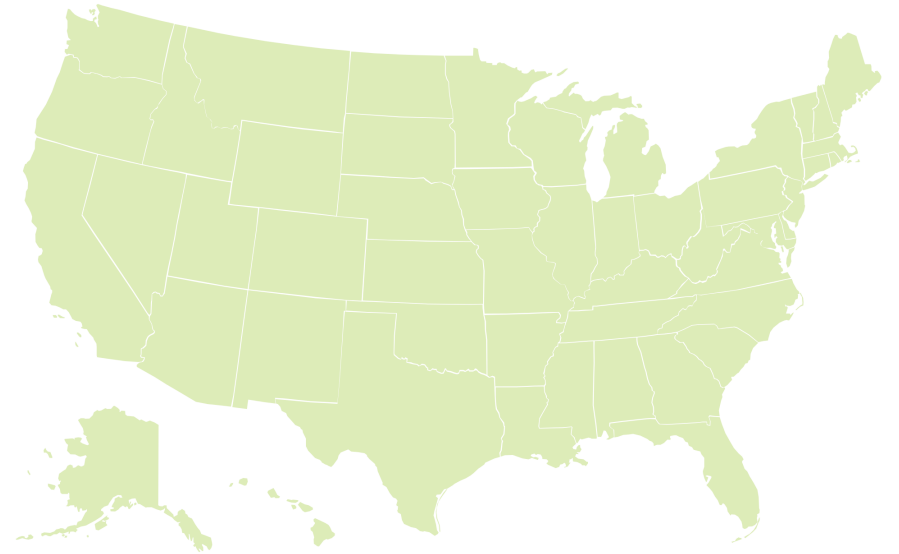


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- May be a pilot program in a few districts, or implemented across a whole state

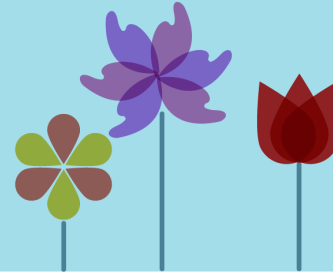
Scope of Personalized Learning Varies Considerably

For example, **Utah** currently has a pilot program of 13 districts that are incorporating personalized learning and mastery-based assessment into their larger digital learning plans, whereas **Idaho** offers assistance to students through personalized online courses and to districts via support for content and infrastructure. **Vermont** has a statewide personalized learning endeavor.



Personalized learning is *not* . . .

Personalized learning aims to tailor instruction to the needs, talents, and skills of each individual learner.



PERSONALIZED LEARNING...

- ✓ does *not* require all students to have their own devices;
- ✓ does *not* mean isolated learning;
- ✓ does *not* mean that students are “teaching themselves”;
- ✓ does *not* disconnect students and teachers;
- ✓ does *not* mean educational technology.

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Chapter 2: Key Concepts for Personalized Learning

Discusses several concepts common to personalized learning:

- Instruction and content tailored to student needs
- A focus on content mastery
- The use of data-driven, real-time feedback
- Effective use of technology

Tailored Instruction

Personalized learning is supported by instructional materials that are **flexible** enough to meet the varying needs of students over time. These materials are complemented by targeted instruction that aligns to **specific student needs and learning goals**. Teachers may move among **different teaching methods and strategies** depending on changing needs.



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Teachers often create **learner profiles** that help track and analyze data across multiple student variables.

Tailored Instruction

For example...

Team Yellowstone, a “school within a school” in **Sacajawea Middle School** in Bozeman, Montana, changed from the traditional school schedule to longer blocks for core subjects, which allow students to investigate subjects of interest and work with peers in project-based learning. Students also focus on core subjects during a particular part of the year (e.g., social studies in the fall and science in the spring), which allows time for deeper study.

Content Mastery

Personalized learning often focuses on students' mastery of content: students demonstrate comprehensive knowledge of content or skills in a particular area to indicate their academic progress.

This is in contrast to “seat time,” a more traditional measure of academic progress.



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Data-Driven Feedback

- Effective use of data allows learning to be individualized: teachers and students know where the student is in terms of understanding content, mastering skills, and meeting educational goals.
- Meaningful data collection and use allows teachers to use the technology and tools available to craft lessons and experiences specific to their students' needs.
- Frequent data collection about students' comprehension and mastery of content, as well as their learning goals and experiences, provides a basis for instructional decisions and effective grouping of students.

Data-Driven Feedback

For example...

In **Ohio's Forest Hills School District**, teacher teams work together to analyze data about individual students, make instructional and intervention decisions, and plan useful learning experiences and outcomes. At a higher level, teachers and administrators may work with data analysts or evaluators to assess and discuss aggregated data, in order to make decisions at the school or district level.

Effective Use of Technology

New technologies enable teachers to quickly see the progress of each student on various tasks and lessons, and to provide differentiated feedback and formative assessments.



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Offering students opportunities to use preferred technology can also increase student engagement.

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Chapter 3: Personalized Learning Data

- Discusses the critical role of meaningful data in personalized learning
- Offers major categories of personalized learning data elements

Personalized Learning Data Elements

Program Structure and Design Elements

Data are used to answer questions like these: *What is the schedule for implementation? When will specific tasks be completed? Who is responsible for particular tasks or activities?*

Curriculum and Instruction Elements

Data are used to answer questions like these: *What specific content will students address? How will the content be delivered? What will the teacher role be in various activities?*

Personalized Learning Data Elements

Student Learning Objectives Elements

Data are used to answer questions like these: *What are the goals for each individual student? What is in each student's learner profile? What are the intended means to meet these objectives?*

Mastery and Competencies Elements

Data are used to answer questions like these: *How will students show mastery of particular content? What are the competency levels in different areas of learning material?*

Personalized Learning Data Elements

Support Systems Elements

Data are used to answer questions like these: *How will the varied aspects of personalized learning be supported? How will teachers be supported? How will parents and other stakeholders be engaged?*

Budget and Finance Elements

Data are used to answer questions like these: *What is the funding structure? How does it break down among local, state, or grant funding? How are particular program elements funded?*

Considerations for Personalized Learning Data

Schools, districts, and states need to consider how personalized learning data will adhere to existing data governance processes and procedures. Questions to consider:

- Who has access to various types and levels of data, and for what purposes?
- What data will be collected that are specific to individual students, and how will personally identifiable information (PII) be protected?
- At what levels will the data be aggregated and for what purposes?
- How do personalized learning data fit into established data reporting structures?

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Chapter 4: Strategies to Support Personalized Learning

- Discusses strategies used by schools, districts, and states to support personalized learning in various ways
- Considers strategies needed at different times in the planning and implementation processes

Create a Strategic Plan

Education agencies create strategic plans for personalized learning that define goals, roles and responsibilities, timelines, planned assessments, and benchmarks for success.



Create a Strategic Plan

Questions to ask when developing a personalized learning plan:

- Who will perform which tasks, and when?
- What data currently exist in the data system, and what additional data will need to be collected?
- What types of assessment will be implemented, both for individual student progress and the overall program?
- What level of training may be needed for teachers prior to the program, and what kind of mentoring or coaching may be needed as the effort is implemented?

Modify Infrastructure and Learning Environments

School and district leaders can support teachers' use of data by providing the data tools and systems to facilitate data use, as well as restructuring learning environments to allow teachers to focus on instruction.

Part of this restructuring also includes providing the training, professional development, and classroom support needed for teachers to become skilled in incorporating personalized learning into their teaching.



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Modify Infrastructure and Learning Environments

For example...

Ohio's Mason City School District provides teachers with specific professional pathways for personalized learning, and has them work with personalized learning coaches and participate in professional development opportunities to work with colleagues and build upon what they have learned. In **Vermont**, a personalized learning working group, made up of different stakeholders, has developed resources and guidelines for teachers and schools, provides ongoing guidance, and offers collection mechanisms for personalized learning data.

Plan for Sustainability

The ways states and districts fund personalized learning programs and activities vary considerably.

Educational leaders need to consider their particular needs in terms of technology, professional development and training, resources, and other supports—and assess how these needs align with their fiscal options.

Remember: Leaders at different levels—school, district, or state—should be aware of the relevant policies that may influence the sustainability of personalized learning in their location, and consider what is needed to work within these policy frameworks.

Ensure Data Privacy

- The privacy of student information is a key concern for education agencies.
- The Family Educational Rights and Privacy Act (FERPA) requires the protection of the privacy of student education records.
- ED's Privacy Technical Assistance Center (PTAC) has developed numerous resources to help schools, districts, and states address concerns and ensure the privacy of student data: several of these are relevant to personalized learning.

<https://studentprivacy.ed.gov/>

Develop and Maintain Support Structures

- Support for teachers at the school level, as well as broader support from the district and state levels, is key to sustaining personalized learning.
- Administrators can assist teachers by recognizing that teachers need ample training and support when learning to make data-driven decisions about students.
- School and district leaders should ensure that appropriate technology tools, technical infrastructure, and schoolwide and classroom routines are in place to minimize the burden that personalized learning may place on teachers.

Develop and Maintain Support Structures

Some ways that school and district leaders can support data-informed personalized learning include

- restructuring learning environments to provide teachers with access to data;
- arranging schedules to allow teachers time to reflect upon data and plan for their use;
- designing staffing models that support a flexible learning environment;
- providing and maintaining the technology needed for personalized learning; and
- investing in infrastructure, such as updated data systems and high-quality tools.

Develop and Sustain Key Relationships

The knowledge and understanding that teachers have of their students' learning goals and progress, as well as the supportive relationships they create with students, form the foundation of effective personalized learning.

Beyond this foundation of student-teacher relationships, it is important to facilitate communication and trust among school leaders, district administrators, and state educators in the pursuit of personalized learning goals.



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Share Data With Stakeholders

When personalized learning data go beyond the teacher and student and are reported to other stakeholders like parents, administrators, or district staff, these data need to be tailored to users and their purposes.



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Across these individuals and levels, personalized learning data allow communication and decisionmaking about learning goals and educational progress.

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Chapter 5: Case Studies from States and Districts

- Highlights case studies and vignettes from three states and six districts that have implemented, or are in the process of implementing, personalized learning.
- Case studies include descriptive information about the agency, key personalized learning elements, a discussion of how the agency developed and implemented personalized learning, and lessons learned.
- Vignettes offer targeted, specific details about programs that are likely to be of interest to readers.

Case Studies From Districts

Westminster Public Schools, Colorado

The district moved gradually from a one-year pilot in a single elementary school to its current district-wide competency-based personalized learning efforts, which cross all subjects and grade levels. Students move through different subjects at the level necessary for them to master the material.

Westside School District, Nebraska

The district had planning teams research personalized learning to develop a plan that worked best for the district's students. They began by identifying a group of "Personalized Learning Early Adopters," who would learn about personalized learning, try new strategies in the classroom, and then share their experiences with other teachers in their professional learning communities.

Case Studies From Districts

Forest Hills School District, Ohio

Teachers work together to develop creative and effective ways to move from a teacher-centered to a student-centered classroom. Instructional coaches work with teachers to implement strategies such as blended learning, problem-based learning, flipped classroom, and balanced assessments for mastery.

Mason City School District, Ohio

The district is working with several options for students and teachers as they develop their strategies for personalized learning and continue transitioning toward a broad personalized learning approach. The central focus at this time is on Personal Learning Days, during which students have the opportunity to create and embark upon personalized interest projects outside of school.

Case Studies From States

Vermont

State law and state board of education rules require that in grade 7 and beyond, students have personalized learning plans (PLPs) and access to flexible pathways for learning.

Utah

A law passed in 2012 allows data exchanges between districts. The state has a pilot project underway with 13 district grantees that incorporates digital learning and competency-based assessment.

Case Studies From States

Idaho

Personalized learning efforts in Idaho currently take place through varied programs, at several educational levels. These include the Idaho Digital Learning Academy (IDLA), a mastery badging system called SkillStack (<https://skillstack.idaho.gov/>), and the Idaho Mastery Education Network.

Vignettes From Districts and Schools

Meriden School District, Connecticut

Students develop proposals for personalized learning experiences that allow them to pursue areas of personal interest and potentially work with professionals or mentors in that area. Teachers work with the students and coordinate with Personalized Learning Coordinators at the schools to help the students develop challenging projects that meet requirements under state standards.

Sacajawea Middle School, Bozeman, Montana

Team Yellowstone, a “school within a school” in Sacajawea Middle School, changed from the traditional school schedule to longer blocks for core subjects, which allow students to investigate subjects of interest and work with peers in project-based learning. Students also focus on core subjects during a particular part of the year.

Lessons Learned From Case Studies

- Encourage communication among stakeholders and develop specific, intentional means for collaboration.
- Co-create the vision for the personalized learning program.
- Determine reasonable timelines for change, and leave room for unexpected challenges.
- Know that the core elements of personalized learning take time to build: allow time for ideas to incubate.
- Foster a culture of innovation and encourage creative approaches.

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Chapter 6: Issues to Consider

- Reiterates the significant variation in personalized learning across the country
- Highlights several key issues education agencies should consider when developing and implementing personalized learning

Challenges of Personalized Learning

- Data systems may not be sophisticated enough to handle significant amounts of learning analytics data, or may not be linked in such a way that data can effectively be shared across classrooms, schools, or districts.
- Transitioning to a mastery perspective may bring challenges related to assessment, grades, and academic promotion.

Continuing Questions

As personalized learning continues to be used across the country, educators are still grappling with questions such as these:

- How can we meaningfully incorporate technology?
- How can we effectively engage students?
- How can we ensure that personalized learning options are equitable?
- How can we ensure the privacy and security of student data?
- How can we work within existing laws or regulations to reach desired or mandated goals?

Personalized Learning Working Group

Chair

Dean Folkers, Nebraska Department of Education

Members

Sheri Ballman, Mason City School District (OH)

Aaron Brough, Utah State Board of Education

Elizabeth Dabney, Data Quality Campaign

Sonya Edwards, formerly of the California Department of Education

Wendy Geller, Vermont Agency of Education

William Goodman, Mountain Home School District #193 (ID)

Phil Grace, Heber Springs School District (AR)

Mike Hopkins, Rochester School Department (NH)

Alvin Larson, Meriden Board of Education (CT)

Lee Rabbitt, Pawtucket School Department (RI)

Questions?



Forum Resources

- For more information about the Forum, please visit <https://nces.ed.gov/forum/index.asp>
- Download free Forum resources at <http://nces.ed.gov/forum/publications.asp>

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